

Small Wind Energy Systems Draft Ordinance Component



Article II, Section 30-28 – Definitions

Anemometer: An instrument for measuring wind force and velocity.

Net Metering: A program offered by a utility company that allows customers with eligible renewable energy systems to offset a portion of the electric energy provided by the utility.

Shadow Flicker: The visible flicker effect that occurs when rotating turbine blades cast shadows on the ground and nearby structures, causing the repeating pattern of light and shadow.

Total Height of Wind Energy System: The vertical distance measured from the average adjoining grade at the base of the tower or other support structure, whether mounted on the ground or on a rooftop, to the highest point of the turbine rotor or tip of the turbine blade when rotated to its highest elevation, whichever distance is greater.

Tower: A freestanding monopole, lattice or guyed monopole structure that supports the wind turbine.

Tower Height: The height above grade of the fixed portion of the tower, excluding the wind turbine.

Wind Energy Conversion System: An apparatus for converting the kinetic energy available in the wind to mechanical energy that can be used to power machinery (grain mills, water pumps, et cetera) and/or to operate an electrical generator.

Wind Energy System, Micro Wind System (Building Integrated): A building-mounted wind energy conversion system that has a manufacturer's rating of 10 kW or less and projects no more than fifteen (15) feet above the highest point on the roof and shall not be considered a small wind energy system in terms of area and setback requirements.

Wind Energy System, Hybrid: A wind energy conversion system that uses more than one technology to produce energy or work (i.e. a wind-solar system)

Wind Energy System, Small: A wind energy conversion system designed to supplement other electricity sources as an accessory use to existing buildings or facilities, wherein the power generated is used for primary for onsite consumption. A small wind energy system consists of a single wind turbine, a tower, and associated control or conversion electronics, having a rated name plate capacity of not more than 50 kilowatts (kW) for residential uses and not more than 100 kW for other uses. For the purpose of residential net metering, Virginia Code §56-594B limits the electrical generating facility to a capacity of not more than 10 kilowatts (kW).

Wind Monitoring or Temporary Meteorological Tower: A temporary tower equipped with devices to measure wind speeds and direction, used to determine how much wind power a site can be expected to generate.

Wind Turbine: A wind energy conversion device that produces electricity; typically having one, two or three blades, nacelle, rotor, generator, controller and associated mechanical and electrical conversion components mounted on top of a tower whose purpose is to convert kinetic energy available in the wind to mechanical energy used to generate electricity.

Windmill: A machine designed to convert the energy of the wind into more useful forms of energy, such as grinding, pumping, etc., using rotating blades driven by the force of the wind to turn mechanical equipment to do physical work, without producing energy. Windmills, as defined, are not regulated as small wind energy systems.